

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-21 (canceled)

Claim 22 (new): A nitride semiconductor device comprising a substrate of yttria stabilized zirconia (YSZ) with an atomic step formed thereon, and a nitride semiconductor layer including an InN crystal associated with a hexagonal system, said InN crystal being oriented with a c-axis thereof approximately vertical with respect to a (111) plane of said YSZ substrate and showing a half value width of a peak below 1.0° associated with a XRD spectrum.

Claim 23 (new): The nitride semiconductor device according to claim 22, wherein said nitride semiconductor layer shows the half value width of the peak below 0.5° associated with the XRD spectrum.

Claim 24 (new): A nitride semiconductor device comprising a ZnO substrate with an atomic step formed thereon, and a nitride semiconductor layer including a GaN crystal associated with a hexagonal system, said GaN crystal being oriented with a c-axis thereof approximately vertical with respect to a (000-1) plane or a (0001) plane of said ZnO substrate and showing a half value width of a peak below 1.0° associated with a XRD spectrum.

Claim 25 (new): The nitride semiconductor device according to claim 24, wherein said nitride semiconductor layer shows the half value width of the peak below 0.5° associated with the XRD spectrum.

Claim 26 (new): A method for preparation of a nitride semiconductor device having a nitride semiconductor layer formed of InN, the method comprising:

polishing a plane (111) of a yttria stabilized zirconia (YSZ) substrate up to an rms value of a surface roughness of 10 Å or less;

heating said polished YSZ substrate at a temperature not lower than 800°C to form an atomic step; and

vapor depositing said InN on the (111) plane of said substrate of YSZ with the atomic step formed thereon.

Claim 27 (new): The method for the preparation of a nitride semiconductor according to claim 26, wherein said InN is vapor-deposited by a PLD method.

Claim 28 (new): A method for preparation of a nitride semiconductor device having a nitride semiconductor layer formed on $\text{In}_x\text{Ga}_{1-x}\text{N}$ ($0 \leq x \leq 0.4$), the method comprising:

polishing a (000-1) plane or a (0001) plane of a ZnO substrate up to an rms value of a surface roughness of 10 Å or less;

encircling said ZnO substrate with a Zn-containing material and subsequently heating the substrate at a temperature not lower than 800°C to form an atomic step; and

vapor depositing said $\text{In}_x\text{Ga}_{1-x}\text{N}$ ($0 \leq x \leq 0.4$) on the (000-1) plane or the (0001) plane of said ZnO substrate at a temperature not higher than 510°C.

Claim 29 (new): The method for a preparation of a nitride semiconductor device according to claim 28, wherein said $\text{In}_x\text{Ga}_{1-x}\text{N}$ ($0 \leq x \leq 0.4$) is vapor-deposited by a PLD method.

Claim 30 (new): The method for preparation of a nitride semiconductor device according to claim 28, said $\text{In}_x\text{Ga}_{1-x}\text{N}$ ($0 \leq x \leq 0.4$) is vapor-deposited at an ambient temperature.